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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/618,307	07/18/2000	Clements C. Lambeth	WEYE115226	9512

26389 7590 08/27/2003

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EXAMINER

FOX, DAVID T

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 08/27/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/618,307

Applicant(s)

LAMBETH ET AL.

Examiner

David T. Fox

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 12.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Applicants' amendment of 5 June 2003 to the specification has obviated the objection regarding the hyperlink.

Applicants' cancellation of non-elected claims 1-19 is acknowledged. Newly submitted claims 21-28 are also drawn to the elected invention, namely the use of DNA markers for a polymix-mediated method of tree breeding.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 27 (newly submitted) is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 27 is indefinite for its employment of improper Markush terminology. Amendment of line 2 to insert --consisting-- before "of" would obviate this rejection. See MPEP 2173.05(h).

Claims 20-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, as stated on pages 2-4 of the last Office action for claim 20.

Claims 20-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention, as stated on pages 4-7 of the last Office action for claim 20.

Claims 20-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bridgwater in view of El-Kassay et al and Stoehr et al (1998), as stated on pages 8-9 of the last Office action for claim 20.

No claim is allowed.

Applicants' arguments filed 5 June 2003 have been fully considered but they are not persuasive.

Applicants urge that the written description rejection is improper, given the failure of Applicants to claim nucleic acid sequences *per se*, and the permissibility of functional descriptions.

The Examiner maintains that functional descriptions in the absence of any structure correlated with that function, i.e. nucleotide sequences, are inadequate. Applicants have not provided any conserved nucleotide sequences which are correlated with function and which are conserved throughout the extremely broad genus, which encompasses molecular markers from a multitude of unrelated tree species, and which also encompasses a multitude of molecular marker types. See MPEP 2163. Furthermore, claims which are drawn to methods of using inadequately described

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products are themselves inadequately described, per the Written Description Guidelines published in the Federal Register on January 5, 2001, Vol. 66, No. 4, pages 1099-1111.

Applicants urge that the enablement rejection is improper, given the failure of the references cited by the Examiner to support his position, as stated in Lambeth et al (2001); the knowledge in the art of methods for DNA isolation and molecular marker analysis; and the guidance in the specification for pedigree determination.

The Examiner maintains that the cited references demonstrate the unpredictability inherent in every step of the claimed process. Applicants' mere assertions in the response or in their own publication are not deemed probative to refute the evidence provided by the Examiner in the form of scientific reasoning and published scientific literature. See *In re Marzocchi & Horton*, 169 USPQ 367 (at page 370, column 1, top paragraph), (CCPA 1971). Furthermore, Lambeth et al support the Examiner's position regarding the unpredictability of the process (see, e.g., page 936, paragraph bridging the columns).

Regarding the knowledge in the art, the Examiner maintains that the instant specification must provide the enabling aspects of the claimed invention. See *Genentech, Inc. v. Novo Nordisk, A/S*, 42 USPQ2d 1001, 1005 (Fed. Cir. 1997), which teaches that disclosure of a "mere germ of an idea does not constitute [an] enabling disclosure", and that "the specification, not the knowledge of one skilled in the art" must supply the enabling aspects of the invention. Furthermore, the obtention of molecular markers are but one aspect of the claimed invention. It is the incorporation of molecular markers into a polymix-mediated tree breeding program that is unpredictable. As stated

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previously, Applicants have provided no real guidance regarding the use of their method to select elite genotypes, or the use of their method in any tree species other than *Pinus taeda*.

Applicants urge that the obviousness rejection is improper, given the failure of the prior art to reasonably suggest their combination in order to obtain the claimed invention.

The Examiner maintains that motivation to combine the teachings of the references is found in the references themselves, as stated in the last Office action. Furthermore, Applicant's evidence of unexpected results relies upon the use of a single tree species and a single type of molecular marker. In contrast, the claims are broadly drawn to any tree species and any type of molecular marker. See *In re Lindner*, 173 USPQ 356 (CCPA 1972) and *In re Grasselli*, 218 USPQ 769 (Fed. Cir. 1983) which teach that the evidence of nonobviousness should be commensurate with the scope of the claims.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David T. Fox whose telephone number is (703) 308-0280. The examiner can normally be reached on Monday through Friday from 10:30AM to 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached on (703) 306-3218. The fax phone number for this Group is (703) 872-9306. The after final fax phone number is (703) 872-9307.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

August 19, 2003

DAVID T. FOX
PRIMARY EXAMINER
GROUP 180-1638

A handwritten signature in black ink, appearing to read "David T. Fox", written over the printed name and title.